

## SOME WASPS OF THE GENUS ZOYPHIUM.

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WHEN I visited Brisbane in 1928, Mr. H. Hacker handed me for description two species of *Zoyphium* which he had already determined as new. They are described herewith, and I take the opportunity to add some comments on the characters of the genus.

**ZOYPHIUM HACKERI** n. sp.

♀ Length about 7.5 mm. ; rather robust, with dull surface ; head black, with oral region red ; thorax and legs entirely terra-cotta red ; abdomen with the first segment red, the tergite with a broad whitish hind margin, the remaining segments black ; orbits diverging below ; a little appressed silvery pubescence in the region of the antennæ ; antennæ red, with the flagellum, except basally, strongly infuscated above ; clypeus clear red, quite pale, minutely and closely punctured, the margin with a pair of small rounded tubercles, very close together, at each extreme side ; labrum broadly rounded, with outstanding golden hairs ; mandibles robust, pale red, black at apex, and with a strong tubercle beneath near base ; front dull, minutely rugulose ; mesothorax bare, very minutely and closely (microscopically) punctured ; scutellum prominent, the sutures before and behind it incised ; pulvilli immense, as usual in the genus ; hind tibiæ with very short spires posteriorly ; abdomen with pale golden pubescence on apical tergite ; tegular clear red ; wings hyaline, a little dusky at apex, stigma and nervures ferruginous ; basal nervure falling a little short of nervulus, which has a slight double curve, but is essentially in a straight line with lower part of basal nervure (the wing here more like *Sericophorus* than the type of *Zoyphium*) ; second cubital cell very broad below, narrowed to a point above, receiving second recurrent nervure nearer its end than first to end of first cubital ; marginal cell ending practically on costa, not appendiculate.

Kuranda, Queensland (H. J. Carter). Owing to the red mesonotum it recalls *Z. rufonigrum* Turner, but that is much smaller and has no lateral tubercles or clypeus.

**ZOYPHIUM HUMILE** n. sp.

♀ Length about 5.2 mm. ; rather slender, but with large broad head ; black, the head dull, but the thorax and abdomen moderately shining ; face and front covered with beautiful silvery hair ; antennæ black ; orbits diverging below ; mandibles strongly curved, testaceous with black tips ; labrum dark ; clypeus without lateral tubercles ; prothorax black, not emarginate ; mesothorax minutely, more or less transversely, rugose, with very short and sparse silvery hairs ; tegulæ dull testaceous ; wings hyaline, the small stigma dusky testaceous, the nervures very pale ; basal nervure going a short distance basad of nervulus (style of typical

*Zoyphium*); second cubital cell of the usual triangular form, but with a face on marginal, nearly as long as lower side beyond second recurrent nervure; first recurrent ending a considerable distance from end of first cubital; marginal cell pointed, but not quite on costa, and not distinctly appendiculate; knees, tibiæ (hind pair with a dusky suffusion behind) and tarsi red; abdomen polished, with thin silvery white hair at sides; apical plate narrow.

Bribie Island, Queensland, Nov., 1918 (*H. Hacker*). Runs in the table near *Z. argyreum* Hacker & Ckll., or possibly *Z. iridipenne* Turner, but very distinct from both. *Z. argyreum* has a pale elypeus.

Turner remarked (1914) that *Zoyphium* could only be separated from *Sericophorus* by the absence of an appendix to the marginal cell. He questioned whether the genera should be kept apart. In *Sphodrotes* the marginal cell is obliquely truncate, with the apex far from costa, and appendiculate. In *Sericophorus* this truncation is smaller, the tip more nearly approaching the costa. The truncation is very narrow indeed in *S. bicolor* Sm., yet it is there, and a long appendicular nervure is present. In *Zoyphium* the tip has moved almost to the costa, and the appendicular nervure has disappeared, or is represented by the nearest stump. Thus the character, though rather insignificant, does serve to distinguish the genera without fail. It is possible that microscopic studies of the mouth-parts and genitalia will eventually indicate that there has been parallel evolution, some species of *Sericophorus* and *Zoyphium* being more nearly related to one another than to their ostensible congeners. If we take only the type species of the two genera, the differences appear more numerous. Thus, in *Sericophorus* (*S. chalybeus* Sm.) the anal lobe of hind wing is larger; in *Zoyphium* (*Z. sericum* Kohl) it is small. In *S.*, the basal nervure falls short of the nervulus; in *Z.* it goes beyond (basad of) it. In *S.* the second cubital cell receives the recurrent nervure far beyond the middle; in *Z.*, at the middle. In *S.* the third discoidal hardly bulges outward apically; in *Z.* it distinctly bulges. Unfortunately these characters are not constant within the genera. Thus in *Sericophorus bicolor* Sm. the basal nervure goes basad of the nervulus, while in *S. viridis* Sauss. it falls a little short of it. In *Zoyphium crassicornis* Ckll. the basal nervure goes far basad of the nervulus, and the second cubital cell receives the second recurrent nervure far beyond the middle. In *Z. affine* H. & C., the basal nervure goes a moderate distance basad of nervulus, and the second cubital receives the recurrent only slightly beyond the middle, thus approaching much more nearly the venation of the genotype. In *Z. splendidum* H. & C., the second recurrent is far beyond middle of second cubital, in this respect resembling *Sericophorus*.

It remains to be learned whether the habits of the two genera differ appreciably. It is a striking example of the influence of convention or custom that genera so nearly allied as *Sericophorus* and *Zoyphium* are separated, while the characteristic Australian *Acanthostethus*, with many species, is treated as a subgenus of *Nysson*. I suggest that *Acanthostethus* should be promoted to generic rank.